

## FIG. 1

1	5	10
ATG GCT CCA ATG ACT CAG ACT ACT TCT CTT AAG ACT TCT		
Met Ala Pro Met Thr Gln Thr Thr Ser Leu Lys Thr Ser		
15	20	25
TGG GTT AAC TGC TCT AAC ATG ATC GAT GAA ATT ATA ACA		
Trp Val Asn Cys Ser Asn Met Ile Asp Glu Ile Ile Thr		
30	35	
CAC TTA AAG CAG CCA CCT TTG CCT TTG CTG GAC TTC AAC		
His Leu Lys Gln Pro Pro Leu Pro Leu Leu Asp Phe Asn		
40	45	50
AAC CTC AAT GGG GAA GAC CAA GAC ATT CTG ATG GAA AAT		
Asn Leu Asn Gly Glu Asp Gln Asp Ile Leu Met Glu Asn		
55	60	
AAC CTT CGA AGG CCA AAC CTG GAG GCA TTC AAC AGG GCT		
Asn Leu Arg Arg Pro Asn Leu Glu Ala Phe Asn Arg Ala		
65	70	75
GTC AAG AGT TTA CAG AAT GCA TCA GCA ATT GAG AGC ATT		
Val Lys Ser Leu Gln Asn Ala Ser Ala Ile Glu Ser Ile		
80	85	90
CTT AAA AAT CTC CTG CCA TGT CTG CCC CTG GCC ACG GCC		
Leu Lys Asn Leu Leu Pro Cys Leu Pro Leu Ala Thr Ala		
95	100	
GCA CCC ACG CGA CAT CCA ATC CAT ATC AAG GAC GGT GAC		
Ala Pro Thr Arg His Pro Ile His Ile Lys Asp Gly Asp		
105	110	115
TGG AAT GAA TTC CGT CGT AAA CTG ACC TTC TAT CTG AAA		
Trp Asn Glu Phe Arg Arg Lys Leu Thr Phe Tyr Leu Lys		
120	125	
ACC TTG GAG AAC GCG CAG GCT CAA CAG ACC ACT CTG TCG		
Thr Leu Glu Asn Ala Gln Ala Gln Gln Thr Thr Leu Ser		
130		
CTA GCG ATC TTT TAA TAA		(SEQ ID NO: 144)
Leu Ala Ile Phe END END		(SEQ ID NO: 138)

C  
 1  
 a  
 I  
 aa20 ATCGATGAAATCATCCCCACCTGAAAGCAGCCACCGCTGGCGCTGGACTTCAACAAAC  
 1 +-----+-----+-----+-----+-----+-----+-----+-----+ 60  
 IleAspGluIleThrHisLeuLysGlnProProLeuProLeuAspPheAsnAsn -  
 1

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 CTCAAATGGTGAAGACCAAGATAATCCTGATGGAAAATAACCTTCTGTCTGCCAACCTCGAG  
 61 +-----+-----+-----+-----+-----+-----+-----+-----+ 120  
 LeuAsnGlyGluAspGlnAspIleLeuMetGluAsnAsnLeuLysArgProAsnLeuGlu -  
 I  
 P  
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 I  
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 I  
 GCATTCAACCGTGCCTGCAAGTCTCTGCAGGAATGCAT [SEQ ID NO:145] aa70  
 121 +-----+-----+-----+-----+-----+-----+-----+ 157  
 AlaPheAsnArgAlaValLysSerLeuGlnAsnAla [SEQ ID NO:146]

Clai to NsII Replacement Fragment

F 19 - 2

<p>N C O I 1 C 1 a I 61 C 1 a I 61 C 1 a I 121 C 1 a I 121 C 1 a I 181 N S i I 181 N S i I 240 AAAATCTCCTGCCATGTCTGCCCTGGCCACGGCCACCCACGGGACATCCAATCCATA TTTAGAGGAGCGGTACAGACGGGACCGGTGCCGGTGGCTGCGCTGTAGGTTAGGTAT AsnLeuLeuProCysLeuProLeuAlaThrAlaAlaProThrArgHisProIleHisIle</p>	<p>H p a I 60 MetAlaProMetThrGlnThrThrSerLeuLysThrSerTrpValAsnCysSerAsnMet TGATCGATGAAATTATAACACACTAAAGCAGCCACCTTGCCTTGCTGGACTCAACA ACTAGCTACTTAATATTGTGTGAATTCTCGTCGGTGGAAACGGAAACGACCTGAAGTTGT IleAspGluIleIleThrHisLeuLysGlnProProLeuProLeuLeuAspPheAsnAsn ACCTCAATGGGGAAAGACCAAGACATTCTGATGGAAAATAACCTTCGAAGGCCAAACCTGG TGGAGTTACCCCTCTGGTTCTGTAAGACTACCTTTATTGGAAAGCTTCGGTTGGACC LeuAsnGlyGluAspGlnAspIleLeuMetGluAsnAsnLeuArgArgProAsnLeuGlu AGGCATTCAACAGGGCTGTCAAGAGTTACAGAATGCACTCAGCAATTGAGAGCATTCTTA TCCTGAAGTTGTCGGACAGTTCTCAAATGCTTACGTAGTCGTTAACTCTCGTAAGAAT AlaPheAsnArgAlaValLysSerLeuGlnAsnAlaSerAlaIleGluSerIleLeuLys 240 300 </p>
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I

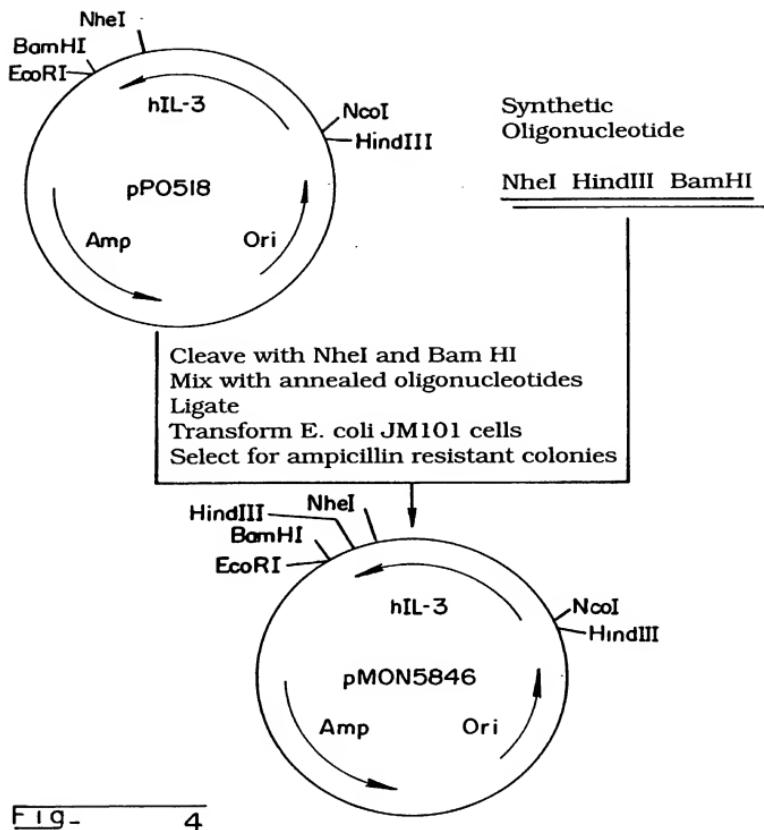
301 TCAAGGACGGTGACTGGAATGAATTCCGTCGTAAACTGACCTTCTATCTGAAAACCTTGG  
-----+-----+-----+-----+-----+-----+ 360  
AGTTCCCTGCCACTGACCTTACTTAAGGCAGCATTTGACTGGAAGATAGACTTTGGAAC

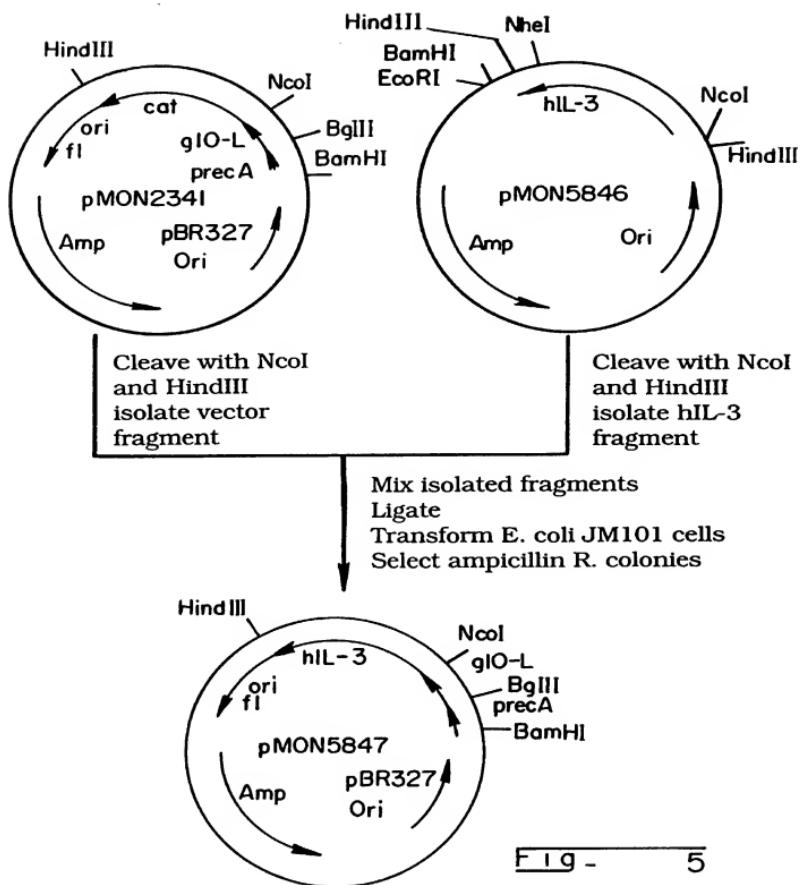
LysAspGlyAspTrpAsnGluPheArgArgLysLeuThrPheTyrLeuLysThrLeuGlu

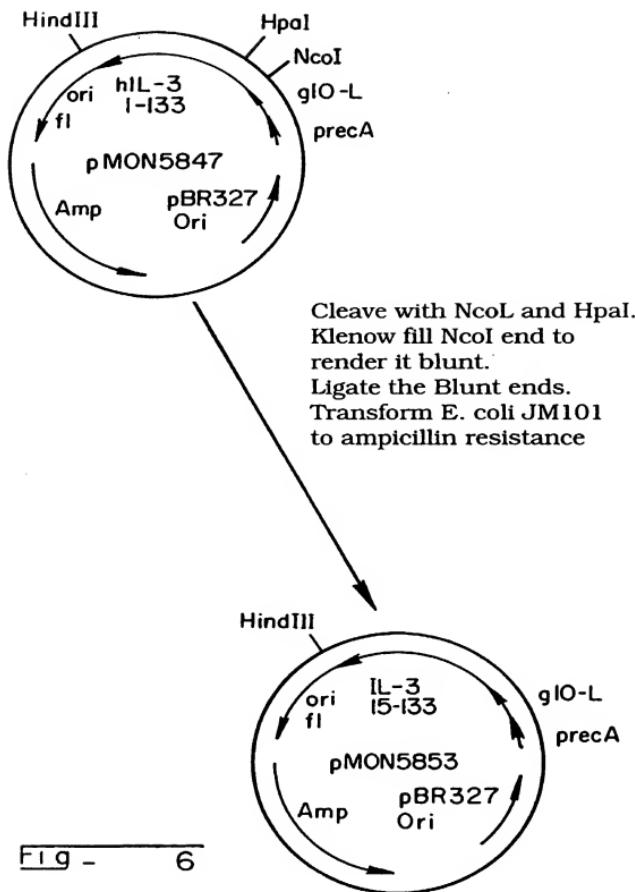
H  
i  
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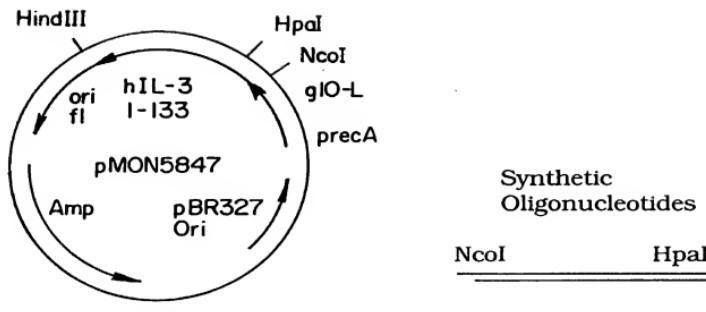
361 AGAACGCGCAGGCTCAACAGACCACTCTGTCGCTAGCGATCTTTAATAAGCTT  
-----+-----+-----+-----+-----+-----+ 414  
TCTTGGCGCGTCCGAGTTGTCTGGTGAGACAGCGATCGCTAGAAAATTATTCGAA

AsnAlaGlnAlaGlnGlnThrThrLeuSerLeuAlaIlePheEndEnd









Cleave with NcoI and HpaI.



Mix cleaved plasmid with oligonucleotides.  
Transform E. coli JM101 cells to ampicillin resistance.

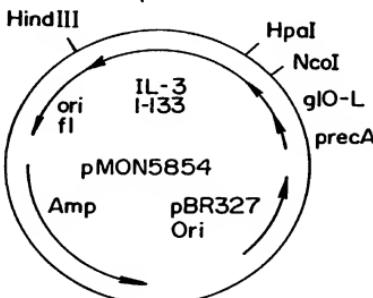


Fig - 7

1 ATGATGATTACTCTGGCGAAACTTCCCTCTGGGGTTGCCAGGCCGGGTAAATGTCT  
 60 TACTACTAAATGAGACGGGTTGAAGGAGACGCCAACGGTGTGCCGATTACAGA  
 MetMetIleThrLeuArgLysLeuProLeuAlaValAlaAlaGlyValMetSer

N

C

O

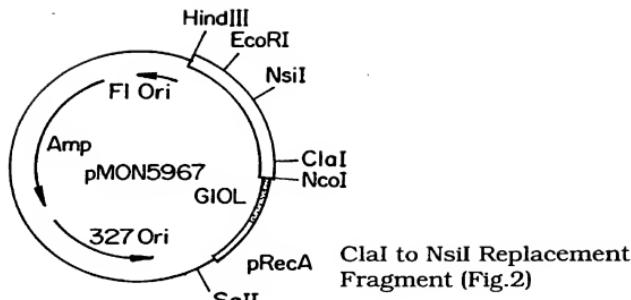
I

GCTCAGGCCATGGCTAACTGC [SEQ ID NO: 149]  
 61 CGAGTCGGTACCGATTGACG 81 [SEQ ID NO: 150]

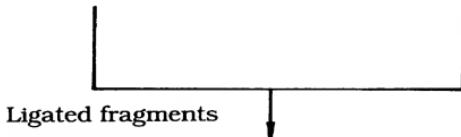
AlaGlnAlaMetAlaAsnCys  
 [SEQ ID NO: 14]

LamB Signal Peptide

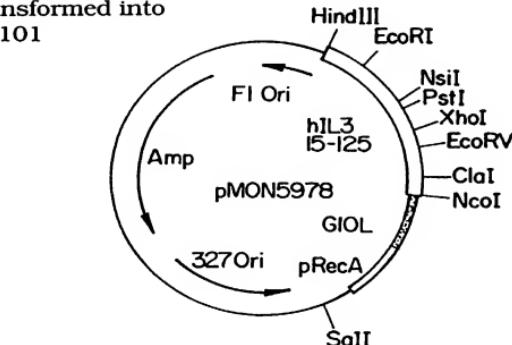
F 19 - 8

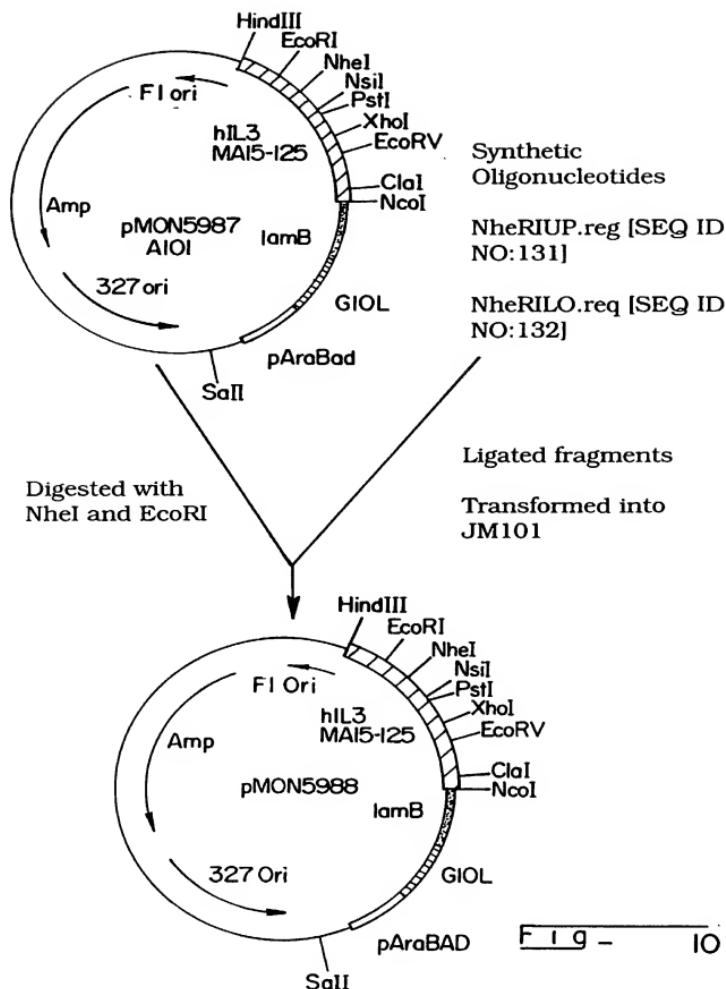


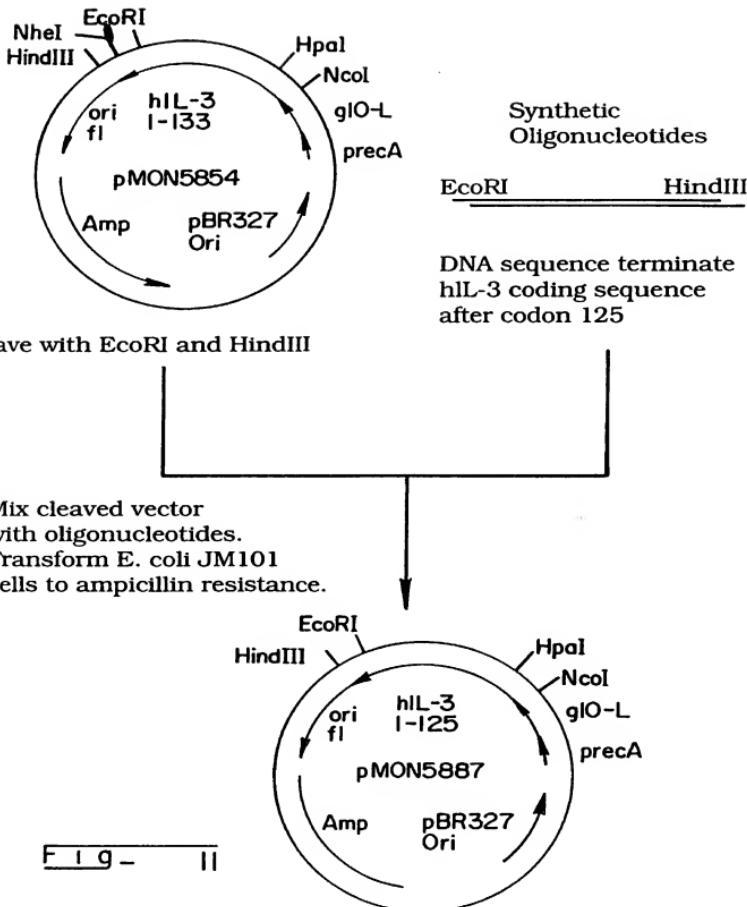
Digested with ClaI  
and NsiI

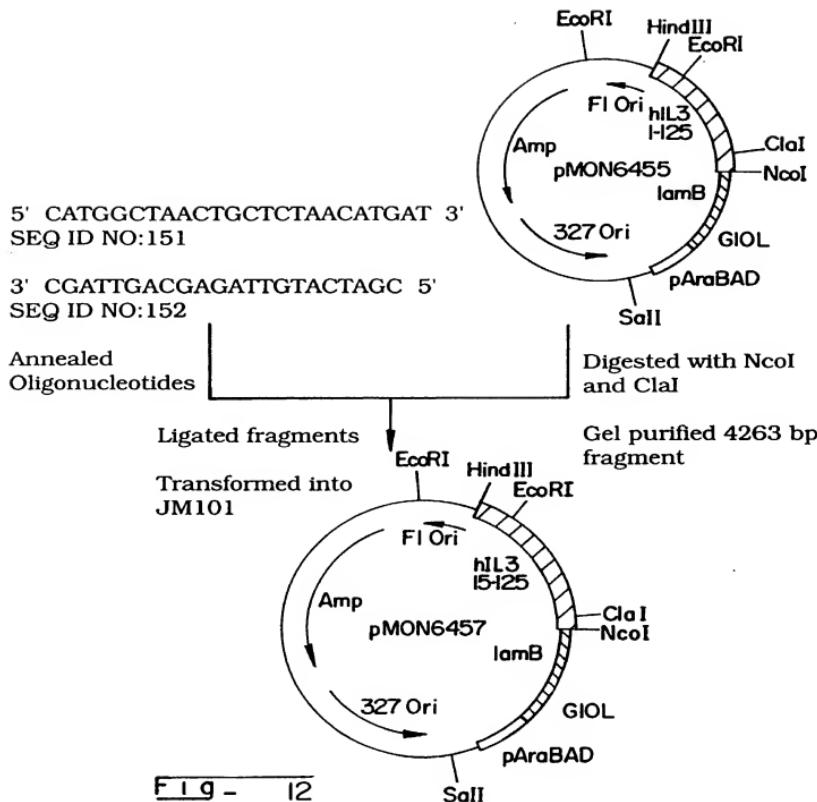


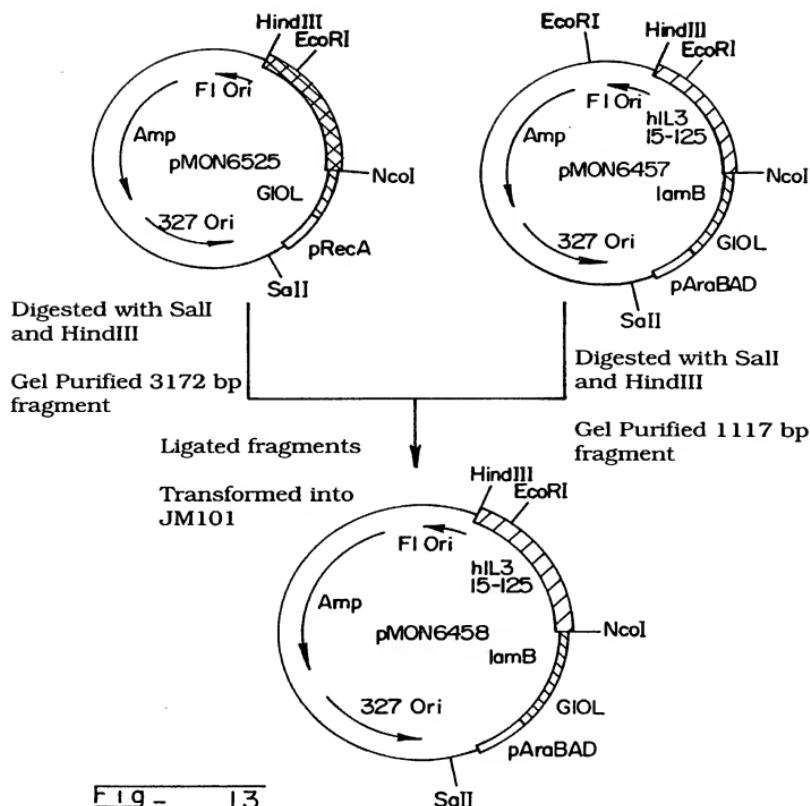
Transformed into  
JM101

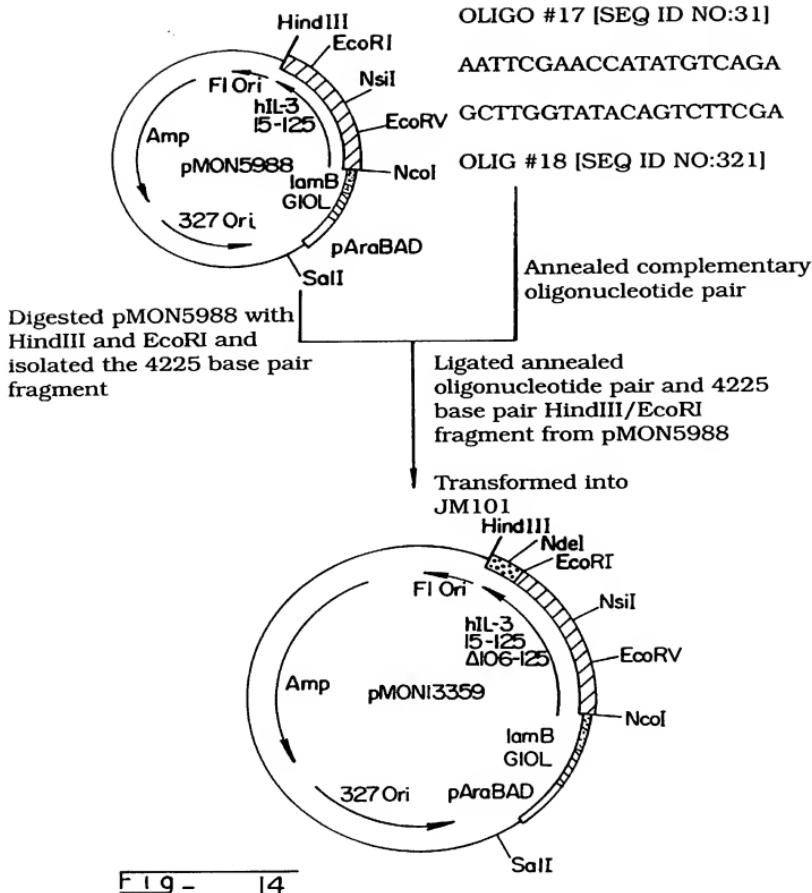












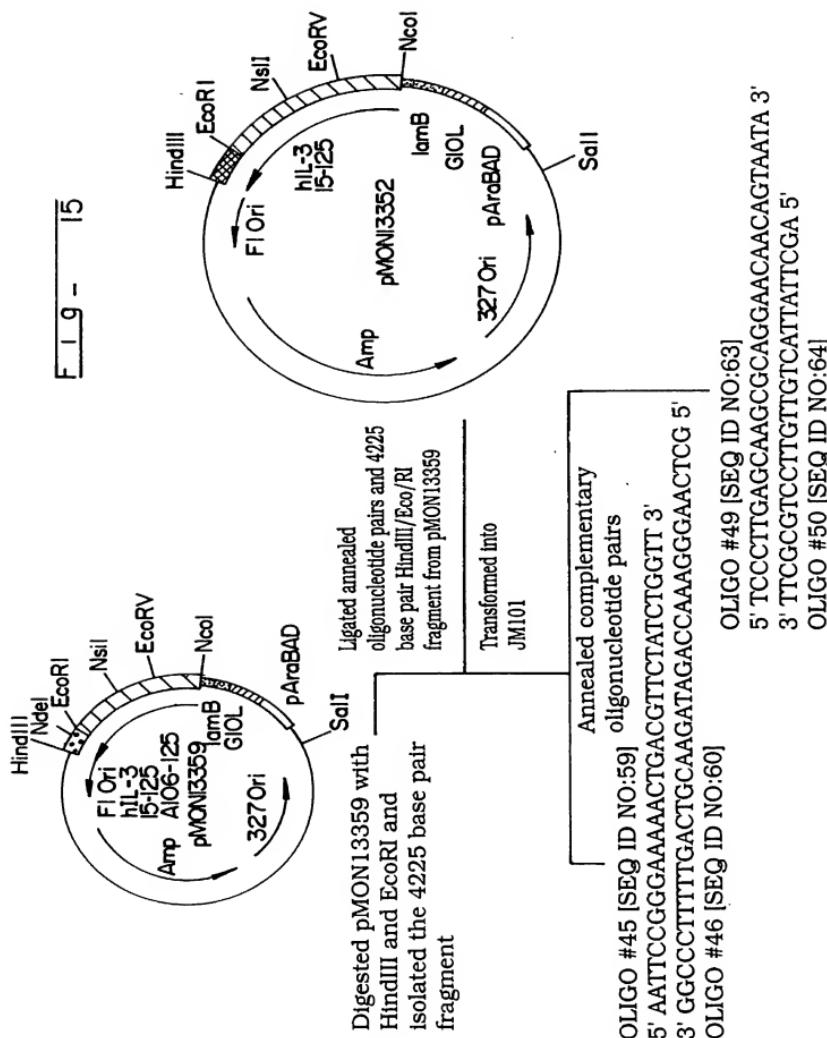
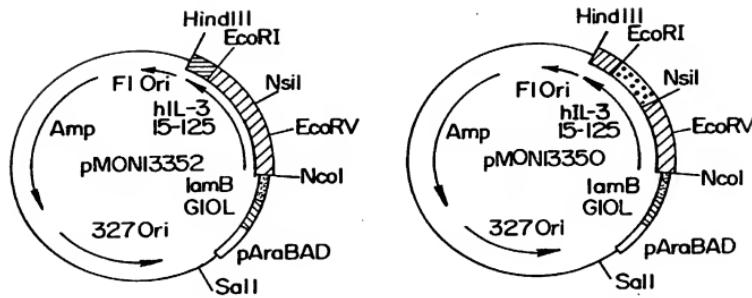


Fig - 16

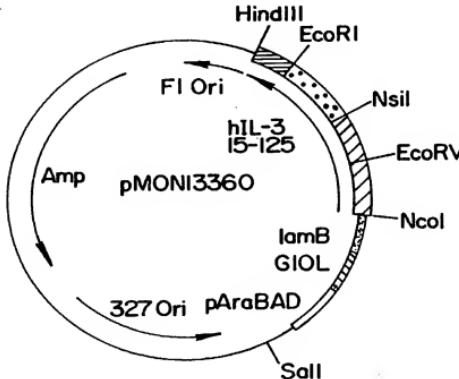


Digested pMON13352 with  
Nsil and EcoRI and  
isolated the 4178 base pair  
fragment

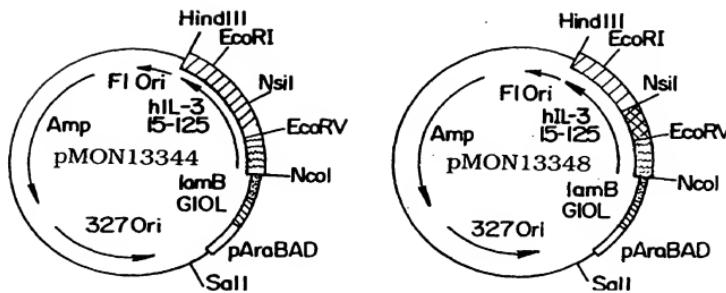
Digested pMON13350 with  
Nsil and EcoRI and  
isolated the 111 base pair  
fragment

Ligated fragments

Transformed into  
JM101



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Digested pMON13344 with  
NsiI and EcoRV and  
isolated the 4218 base pair  
fragment

Digested pMON13348 with  
NsiI and EcoRV and  
isolated the 71 base pair  
fragment

Ligated fragments

Transformed into  
JM101

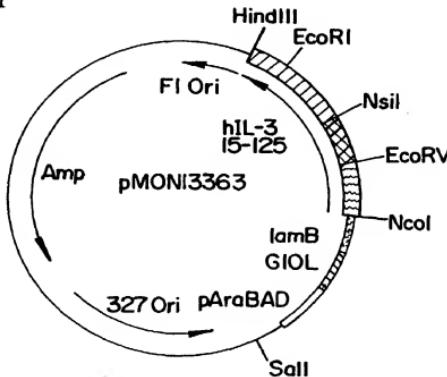


Fig - 18

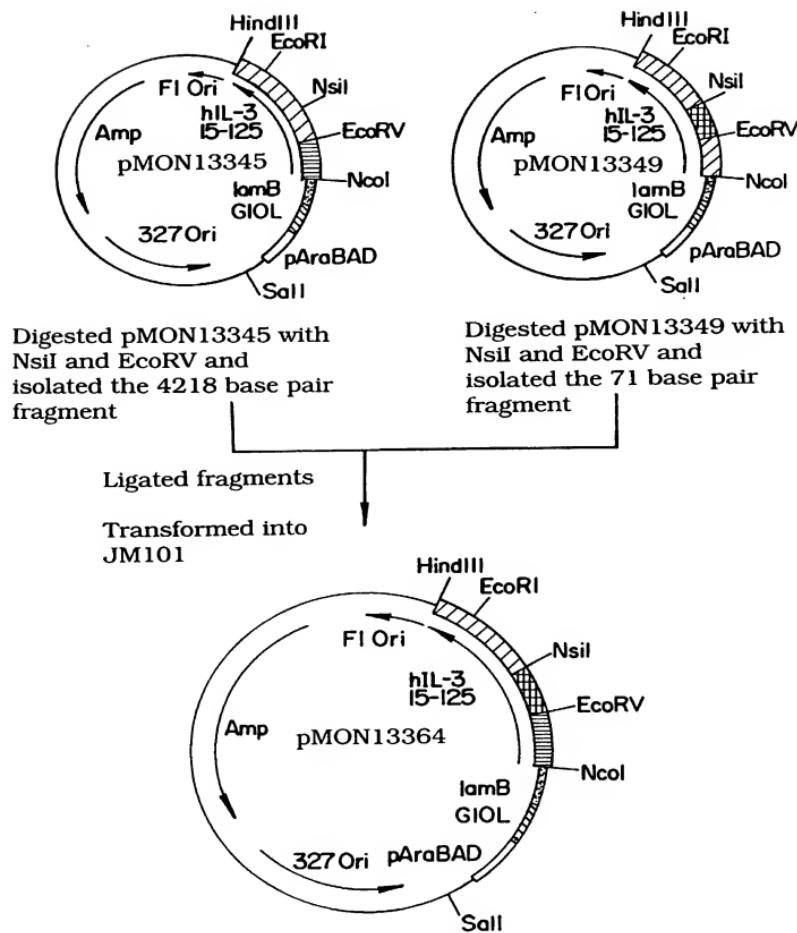


Fig - 19

